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U.S. NAVY TO SERVE AS AN
INSTRUMENT OF U.S. FOREIGN
POLICY: THINKING ABOUT
POLITICAL AND MILITARY
ENVIRONMENTAL FACTORS**

Bradford Dismukes

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12 Bradford Dismukes

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INTRODUCTION

It is probably fair to say that there is wide agreement that since World War II the U.S. Navy has made valuable contributions to the nation's foreign policy in peacetime. Most analysts agree that in principle the power to threaten violence or act violently from the sea retains utility today. But one finds considerable disagreement about the range of practical contingencies in which U.S. seapower can be usefully employed at acceptable cost and risk. To help provide a common departure point for the conference, this paper will provide: (1) a brief review of a few necessary terms of reference; (2) a discussion of the specifics of how requirements to use the navy in support of policy are likely to arise; (3) an assessment of the factors affecting the navy's utility in a political role, particularly as compared to the other instruments available; and finally (4) a brief summary look into the future.

Terms of Reference

These remarks are meant to apply to the roles of naval general-purpose forces in peacetime over the coming decade. Expected conditions in the international system make it analytically reasonable to define the

term "peacetime" quite broadly. It is meant to encompass all situations short of major war with the USSR. Operations in "peacetime" can range from routine forward deployments, to crisis augmentations of forces, to actions against a nation other than the USSR, and can even include a local conventional exchange between U.S. and Soviet forces in connection with a Third World crisis. In this last respect the category mirrors the definition in Soviet doctrine of a "local war," which, since the mid to late sixties, has allowed for the participation of the superpowers and is fought for limited goals specifically with conventional means.

The main focus of attention will be on the navy's sea control functions, although related questions of the projection of power ashore necessarily will arise.¹ Primary emphasis will be given to the Afro-Asian Third World, away from the epicenter of the NATO-Warsaw Pact confrontation. In these peripheral areas the superpowers have found opportunities for maneuver and gain through the employment of military forces

¹Such issues are the major topic of another session of the conference.

because conditions are more fluid than those found in Europe. Moreover, with the exception of the flow of oil from the Middle East, the interests the superpowers have thus far seen at stake, though important, have not been vital. Finally, it will be assumed that the U.S. will maintain strategic forces adequate for at least "equivalence" with the USSR. Such forces are an essential precondition to the effective use of the navy or the other military services in the support of foreign policy.¹

SERVING U.S. FOREIGN POLICY

Demand for the navy to serve as an instrument of U.S. foreign policy will vary with

- the extent to which the U.S. actively seeks to influence change, especially in the Third World; and
- the perception of U.S. authorities of the utility of the navy for this task.

¹Needless to say, if U.S. strategic forces are inadequate by this standard today or become so in the future, the most vigorous steps to acquire needed strategic capabilities would be required. At the same time, the immense destructive power of strategic weapons makes them difficult to employ effectively for political purposes in connection with any but core values.

Analysis has provided a reasonable understanding of the determinants of these factors. Let us examine first, potential U.S. requirements to seek to influence change, then the relevance of naval power to such purposes, and finally the resulting implications for future demand on the navy to provide politico-military services.

The Requirement to Influence Change

Because enduring geopolitical realities require, the U.S. is highly likely to continue to define as vital its interests in the security and independence of Western Europe, Japan, and the Western Hemisphere. Thus the U.S. will remain extremely sensitive to change in those areas and will procure and deploy military forces designed to insure that such changes are not inimical to our interests. The primary objective of these forces is the deterrence of major war with the USSR, for which purpose they will prepare for and demonstrate in peacetime the relevant warfighting capabilities. We should only note here that the ultimate military, and thus political, viability of U.S. forces on the ground in Eurasia is dependent on the perceived effectiveness of the alliance's naval forces. A second major objective of

these forces is to reassure the members of the alliance which, at its core, depends on maritime power for its coherence.

The degree to which the U.S. will seek to influence events in the remainder of the world will vary with: (1) the level of order that generally obtains in the international system; (2) our perception of the magnitude of and threats to our interests in specific regions; (3) the specific level and effects of Soviet activism; and (4) trends in the importance of and threats to the free use of the seas and seabed.

An Orderly or an Anarchic World?

However turbulent the decades since the Second World War, the international system nonetheless has functioned; it has been orderly or at least predictable. Today, however, many signs suggest that disorder, if not the collapse of the working rules of the world economy and security system, may be at hand. The root causes of the trend toward disorder lie in "the intersection of the old East-West conflict with the

new North-South conflict."¹ This global tension is deepened by the cumulative effects of population growth, social instability, and unresolved disputes over national autonomy and national unity.

North-South confrontation is profound; it involves much more than the disruption of important commodity markets; and it almost certainly will endure at least until existing or perhaps as yet unforeseen institutions deal more successfully with the distribution of the world product. The "non-aligned" movement's anti-Western tendencies are likely to focus on the United States, and it is at least an open question whether the next generation of Third World leaders will be as conservative as the current one. There are good reasons to expect that they will become more antagonistic to the North, especially to the U.S., and that the solidarity of the Third World on North-South issues may increase.

In sum, considerably evidence suggests that turbulence in commodity markets and the U.S.-Iranian cri-

¹These words by Guy Pauker are from his "Military Implications of a Possible World Order Crisis in the 1980s" (RAND, R-20003-AF, November 1977), perhaps the most cogent of recent statements of these problems.

sis of 1979-80 are harbingers of things to come. Even given the skillful implementation by the U.S. of wise political and economic policies, the international economic and security systems are likely to become more disorderly in the coming decade. This condition necessarily makes military power more important among the instruments available to decision-makers.

Regional Assessment of U.S. Interests

Regardless of how U.S. policy ultimately strikes a balance between relatively narrow national interests and larger interests of global order, the U.S. almost certainly will react to disorder in the world in proportion to what it sees at stake in each region.

The Persian Gulf has gained recognition as a vital U.S. economic interest by Presidential fiat. It is likely to continue to hold that position even though additional sources of energy, including petroleum, may well develop before the end of the century. The extent of U.S. interests in the Gulf is magnified by the dependence on that region of our vital allies in Europe and Asia.

A second source of strong "derivative" interests are those arising from our relations with China. The PRC may or may not achieve full superpower status in the next decades, but it will continue to play a crucial role in U.S. relations with the USSR -- as well as with Japan and the emerging ASEAN states. Thus, to the general U.S. interest in the Western Pacific, Southeast Asia and the Indian Ocean littoral, we must add some measure of the weight of the interests of China.

The immense mineral wealth of sub-Saharan Africa clearly makes it an important economic stake. However, U.S. economic interests there are unlikely to reach the level of "critical dependence." On the other hand, southern Africa may well experience protracted violence with heavy racial overtones before the end of the century. This, in combination with economic interests, could result in the emergence of a strong U.S. political interest in developments in the region, especially if the process of change is extremely violent and the governments that promise to emerge appear intensely hostile to the U.S.

In the Western Hemisphere, interests are almost certain to remain vital, at least in the Caribbean; however, the emerging powers of South America proper are likely to become more and more capable of securing U.S. interests on the continent against foreseeable external threats. At this time it is difficult to identify specific issues on which the interests of the U.S. and the Latin American states will strongly diverge in the future; however, a prudent planner, mindful of the essentially anti-American positions recently adopted by, say, Mexico or Venezuela, should scarcely rule out that possibility.

In sum, the most likely estimate for U.S. global interests is the continuation of those now seen as vital in the North as well as vital interests, both direct and derivative, in specific regions of the Third World. The dependence of our allies on imported resources will cause other Third World interests to grow in importance, if not become vital. Threats to U.S. interests of local origin will vary; however, the strong consensus among observers in the U.S. and abroad is that domestic and international instability are quite likely to remain endemic to Africa, the northern shore of the Indian Ocean, and the Carib-

bean. Because of pervasive if not growing anti-American sentiments, to a considerable degree this instability is likely to embroil the U.S.

Soviet Activism

Long before the Afghan invasion, there was ample evidence that the actions of the USSR would also impel U.S. decisionmakers to seek to shape events in the Third World. There has been little question that the Soviets have intended an activist policy and have relied heavily on politico-military means. They already possess considerable military wherewithal for the purpose and can draw on more than the twelve years' experience in politico-military operations in non-contiguous areas. Their capabilities to project military power into regions bordering on the USSR are obviously massive; capabilities to operate in more remote areas are quite obviously growing.

Soviet activism will be seen as producing threats to U.S. interests, although in areas which the U.S. credibly defines as vital, any direct Soviet challenge is likely to be tentative -- with one crucial exception: if the USSR and its allies become major oil importers, their stake in the leading exporting

regions like the Persian Gulf will necessarily rise sharply; for the first time the U.S. and USSR may have conflicting interests outside Europe that each deems vital. Even the emergence of a perceived trend in this direction would produce the gravest foreseeable threat to the cohesion and security of the Western alliance and could result in the restructuring of the entire U.S. deployment posture.

Regardless of developments in Soviet energy policy, U.S. decisionmakers are quite likely to perceive a second incentive for U.S. action: the linkage between Soviet behavior in the Third World and relations with the USSR on central issues like strategic arms limitations. The capacity of the U.S. to discipline the Soviet Union on the periphery will be seen as a necessary precondition for detente, for efforts to further stabilize U.S.-Soviet competition over central issues, and as an important determinant of U.S. credibility as a superpower patron, both on the periphery and at the center. Most fundamentally, the U.S. will retain a strong interest in ensuring that current and future leaders of the USSR do not develop an excessive notion of their latitude for ac-

tion in the world under conditions of acceptable risk.

Use of the Sea and Seabed

A final set of interests, producing requirements for the U.S. to seek to manage global change, arises from the growing importance of using the sea and the seabed. Current trends in world merchant shipping suggest a steady increase in total tonnage through 1990, with the Soviet Union and China among the leaders in planned ship acquisitions. Future growth in world trade is obviously dependent on the relatively free movement of this shipping. The unhindered movement of the world tanker fleet is by definition a vital interest of the Western alliance.

Yet, freedom of the seas, however much in the apparent interests of all nations, cannot be lightly assumed. The seaward encroachment of national jurisdictions is already a recognized threat to the world fishing industry and to commercial as well as military navigation and air transit rights. Interruption of maritime transit occurs more frequently than is commonly recognized. Roughly one naval blockade has been mounted somewhere in the world in every year

since 1971.¹ The greatest immediate threat to the maritime movement of commodities comes from "terrorist" attacks especially on ports, petroleum loading terminals, and on ships passing through restricted waters. Less likely, though scarcely to be ruled out in the future, are attacks on ships on the high seas.

The exploitation of the continental shelf and deep seabeds will accelerate with advances in production technology and the rise in world demand for raw materials. Offshore petroleum will be critical to China's development and perhaps to world oil prices. Disputes over the boundaries of economic zones are common. Disagreement over the regime which is to manage deep seabed economic ventures has already provided a telling example of Third World demands for a "new economic order." Today, it is not possible to forecast the degree of violence that will issue from sea and seabed issues, but the classic ingredients for protracted conflict are clearly present.

¹At the same time, blockades have been a favored tool of international organizations when considering the invocation of sanctions against wrongdoers. Almost by necessity forces for such actions must come from navies of the major maritime powers.

A serious breakdown in the international order, should it occur, is almost certainly to involve maritime issues if only because of the physical vulnerability of what is at stake (e.g., merchant shipping, fishing fleets, or ports and offshore economic assets) and the crucial role of international law in their security. At the same time, a general diminution in world order will itself impel the U.S. to speed up exploitation of the seabed in pursuit of national self-sufficiency.

Utility of Naval Forces

U.S. authorities will call on a variety of policy instruments to deal with these changes, among them naval power. Because its use as a coercive tool always involves special elements of cost and risk, decision-makers must be reasonably confident that it can make a net positive contribution in ways other instruments cannot match. Because it shares a number of attributes with ground and land-based air forces, a secondary question is whether there are significant circumstances where naval capabilities are of unique value. To arrive at some informed conjecture about the way U.S. decisionmakers are likely to view the relevance of naval forces over the next decade, let

us take up in sequence the peculiar characteristics of coercive diplomacy, the special nature of its naval variant, and finally the complications introduced into our practice of coercive naval diplomacy by the assignment to the Soviet military, primarily the Soviet Navy, of similar tasks.

Coercive Diplomacy

The nation calls on its military forces to support foreign policy because of their capacity to threaten violence or act violently.¹ These capacities tend to have direct effects on the sovereignty of nations in ways which other policy instruments do not. Moreover, independent of U.S. policies, other states can and do resort to military action. When this nation chooses to respond, it is rarely possible to do so effectively unless the response includes an, often predominant, answer in kind.

In contrast to other forms of diplomacy -- for example, trade policy or development assistance programs

¹This capacity can be used to support allies as well as coerce opponents and for a wide range of combinations of both, all of which are ultimately minatory.

-- the military instrument tends to produce its direct effects more quickly, or, quite commonly, to win time for other policy instruments to take effect. Given U.S. long-term objectives, other instruments of policy in the aggregate are almost certainly more useful than the military, but in some important situations there are no substitutes for it. The decision to use it, however, should be taken with the following caveat in mind: As with all instruments of diplomacy, success is never guaranteed in the exercise of the military instrument, on whatever scale. Prudence commands the careful evaluation of the relevance of coercive diplomacy to the context and the objectives sought, as well as the skillful orchestration of the military-political and other instruments of policy, and, scarcely last, a national consensus that supports its use.

Critical to the determination of the relevance of coercive diplomacy in each situation that may arise in the future is an understanding of the mechanisms through which it appears to have its effects.

The range of ways U.S. military forces can be used varies widely. In some circumstances decisive mili-

tary action (for example, disarming an opponent or seizing control of an objective) may be the only option open to the nation. In the future, particularly if the U.S. faces a nuclear-armed, Third World opponent, this mode of action may arise more frequently. To date, however, military power has been commonly employed as a politico-military, rather than a purely military, tool. In these cases its use can be symbolic or direct, or a combination of both.

The principal symbolic uses of military forces involve the periodic injection or the maintenance of their presence in an area of interest -- on a scale sufficient to command serious attention by regional leaders. For example, the forward deployment of the Soviet Navy in the mid- and late-1960s is now seen as an early manifestation of Soviet assertiveness in the Third World, even though the Soviets by that time had been using other instruments of policy there for over a decade. In fact, the persistent presence of the Soviet Navy endowed Soviet interests in the areas of

its deployment with a "legitimacy" that they had earlier lacked.¹

Augmenting deployed forces or increasing their readiness are among the most eloquent forms of symbolic action available to the statesman. Such stimuli have a demonstrated capacity to seize and hold the attention of decisionmakers, to signal to them the intensity of U.S. concern, and to underline the exercise of other forms of national power.

When employed directly, the politico-military instrument also seeks to affect the calculations of statesmen by presenting the credible threat of military action if circumstances require. Where it is feasible and where our interests warrant, massive forces may be marshalled to immobilize the target by threatening irresistible and decisive action. Far more often, however, the goals sought do not warrant such efforts and the scale of the threat presented is deliberately moderated, causing the target to estimate for himself the consequences of failing to take U.S. preferences seriously into account, and to comply.

¹Many would argue that Western governments and media made a major contribution to this "endowment."

Naval Diplomacy

The unique attribute of naval as compared to other forms of military power in the diplomatic context is its capacity to be brought to bear on the vast majority of the world's surface at the unilateral discretion of the United States. Moreover, force composition, size, speed of movement, duration of action, and specific operations can be carefully controlled by national authorities to meet changing political requirements. In addition U.S. Marine ground forces, moving by sea, bring capabilities for seizing objectives which have proved especially valuable in threatened or actual intervention ashore. These unique capabilities account for the relatively frequent employment of U.S. naval power for political purposes over the last 35 years.

Although land-based aviation can have a major combat impact, including on the struggle to use the sea, it is difficult to translate this capability into political effectiveness at least in connection with Third World interests, which may be large, but still not vital. If operated from home territory, land-based aviation invites retaliation, with attendant dangers of escalation. If operated from foreign soil, it is

likely to require supporting air defense forces for airfield protection and perhaps while en route from or to the homeland. Moreover, its operation is, to a considerable degree, at the sufferance of the host government whose domestic and international policies receive tacit endorsement, or to whom security guarantees are inevitably extended on a scale that might not otherwise be the case. In short, the political utility of land-based aviation is limited to specialized circumstances.¹ This accounts for its relatively infrequent use by the U.S. in the past.²

¹These factors are believed to account for the absence of strike aircraft from the contingents of Soviet Naval Aviation that have thus far deployed overseas.

²It has been suggested that land-based air forces have been and remain more effective in producing desired political outcomes than sea-based combat aircraft. (Barry M. Blechman and Stephen S. Kaplan, Force Without War (Washington: The Brookings Institution, 1972), p. 108 and p. 530). However, the evidence on which that judgment was based can lead to other conclusions. Stephen S. Walt in "Causal Inferences and the Use of Force: A Critique of Force Without War," CNA Professional Paper 279, pp. 32-33, argues that "in cases where the different types of forces were used by themselves (thereby controlling for possible perturbing or intervening effects when land-based aircraft and sea-based forces were used together), the rate of success is identical (100 percent), and we have more evidence regarding the effectiveness of naval forces."

At the same time, where changing U.S. interests require, there may be no substitute for committing major U.S. forces on the ground -- Air Force, Army, or/and Marine. It is recognized that such a decision is usually one of long-term strategic proportions -- like those that led to the U.S. military posture in Western Europe, the Western Pacific, and, to a lesser degree, Southeast Asia. The nation appears to be on the brink of such a decision in connection with incipient vital interests in the Persian Gulf region. There is little doubt that such a strategic realignment would have profound and probably irreversible effects on subsequent U.S. policies. Concern with this possibility has added to the hesitancy in deliberations on its implementation, leading at this time to preliminary decisions to improve the overseas infrastructure and prepositioned equipment for naval and marine forces in the relevant theaters and the capacity to deploy forces rapidly from the United States. These latter clearly enhance the credibility of the U.S. position, increasing the weight with which the U.S. presence is felt.

It can be argued, however, that where interests in a region are deemed vital, something beyond a point

d'appui for forces to be deployed rapidly from the U.S. may well be required. Interests important enough to be fought for on a large scale usually imply explicit or tacit alliances, an underlying view of interests and threats shared with "alliance" partners in the region, and, most probably, the permanent forward commitment of U.S. forces on the ground. The existence of a U.S. "rapid deployment" force undoubtedly will have a deterrent value; however, its speed of movement should not be regarded as a substitute for the skillful preparation of the political prerequisites for its effective use in the forward area, nor for the assessment of which interests are truly vital.

Independent of a major new strategic commitment of U.S. military power, naval forces have a demonstrated capacity to support and invigorate U.S. diplomacy. It is difficult to foresee changes that will make the unique attributes of naval forces less relevant in the future. On the contrary, the political obstacles to global airlift and to the deployment of land-based tactical aviation have clearly increased in the last decade and, in an anarchic world, are likely to continue to do so. This phenomenon, which affects both

the deployment speed and staying power of land-based air forces, strongly suggests that sea-based forces are likely to become increasingly dominant as the most reliable means with which to deliver politico-military services in significant regions of the Third World.

Effects of Soviet Coercive Diplomacy

The posture and attitudes of the Soviet Union will be a major influence on U.S. decisionmakers in determining first the desirability, then the scale of employing the navy in a political role. Analysis has demonstrated that: (1) Soviet policy in the Third World relies heavily on politico-military means, and (2) on issues important enough to draw a U.S. military response, we should expect a Soviet counterdeployment or the augmentation of Soviet forces already on the scene.

When the naval forces of both superpowers are present during an international crisis, the experience of well over a decade has repeatedly shown that the U.S. Navy is not then "neutralized." On the contrary, if credible forces are deployed, the latitude for U.S. action and the effectiveness of the actions we take

hinge on which of the superpowers (or their clients) finds itself on the strategic defensive.¹

If the U.S. (or a U.S. client) is on the defensive, the U.S. will enjoy a considerable advantage with respect to the USSR. Assuming the local factors are favorable (for example, that the U.S. has the necessary capabilities to deal with the situation, that, if a client is involved, his survival after the crisis is a reasonable gamble, etc.), then, under conditions of acceptable risk, the U.S. can employ its forces to restore the status quo. If a U.S. client is severely threatened, the U.S. can at a minimum secure its client's core values (for example, prevent his utter defeat and subjugation). In such cases,

¹These generalizations about the factors affecting the impact of the superpowers on Third World crises are drawn from an empirical examination of roughly 30 cases of Soviet coercive diplomacy, 1967-76 (James M. McConnell, "The 'Rules of the Game': A Theory on the Practice of Superpower Naval Diplomacy," Soviet Naval Diplomacy, Bradford Dismukes and James M. McConnell (eds.), New York: Pergamon Press, 1979, Chapter 7.) Note that the question of who started the war is not important. The crucial factor in the superpowers' latitude for action and in the effectiveness of the actions taken is the relationship they (and their clients) hold to the status quo. The latter can involve the security of established governments and the principle of free use of the seas as well as the inviolability of international boundaries.

again assuming the U.S. has credible forces on the scene, threats by the USSR, implied or explicit, lack credibility. (Needless to say, the U.S. did not deploy, perhaps did not possess, credible military capabilities in connection with the Afghanistan case.)

Similarly, when the Soviets are on the strategic defensive or, when they provide politico-military support to one of their clients in a similar situation, corresponding threats by the U.S., should they be made, will also have diminished force. Nonetheless, U.S. forces will still have a vital role to play in such cases. If deployed, they can limit the effects of Soviet actions and seek to insure that their impact is confined to defensive ends. Historically, the failure of the U.S. to counterdeploy adequate forces has encouraged the Soviets to take the initiative and has meant that the threats implied by Soviet actions have, to a considerable extent, become open-ended. Changes in the status quo unfavorable to the interests of the U.S. and its allies have then occurred.

To a significant degree, Soviet respect for status quo has been a function of U.S. willingness to ensure

its enforcement through the deployment of military power to the relevant theaters. Soviet power to act in nations contiguous to its borders is, of course, immense. However, Soviet forces as they are currently structured (airborne/airlift team for rapid intervention; naval forces to counter the U.S. Navy and provide security for sealift and airlift), can only operate in areas beyond those they can reach directly over land at the sufferance of the U.S. U.S. sea control capabilities provide considerable opportunity to constrain Soviet politico-military behavior in most of the Third World. This reality is essentially independent of whether the U.S. in each case chooses to invoke "linkage" with larger U.S.-Soviet strategic relationships. Indeed, the evidence suggests that "linkage" is most effective when the U.S. counterdeploys general-purpose military power and least effective when it does not.

Moreover, even Soviet actions confined to the defense of the status quo have resulted in unfavorable changes -- for example, the Soviets acquired a major position in Ethiopia as a result of their support of the status quo in the Horn of Africa. In that case, because the potential U.S. client, Somalia, was in

violation of the status quo until the war's closing days, it was not possible for the U.S. to prevent Soviet politico-military support for Ethiopia. Nonetheless, the absence of a locally perceived U.S. politico-military response to Soviet actions did result in a revised appreciation within the region (and indeed elsewhere) of Soviet effectiveness and, at best, of U.S. disinterest and passivity.

Thus, although risks are never negligible in Third World crises, Soviet involvement does not produce either intolerable risk or stalemate. On the contrary, assuming local (that is, non-Soviet) factors are favorable, when our interests are threatened or where a U.S. client is in trouble, it will usually be both desirable and feasible to deliver politico-military help. When the Soviets or one of their clients are on the strategic defensive, it will usually be feasible and desirable to mount a U.S. counterdeployment to set limits on their actions, to insure that the Soviet efforts do not go beyond the restoration of the status quo. A second objective in such cases is to reduce the likelihood that the Soviets will gain a favorable position as a result, or if they do, that they will be viewed as the dominant arbiters of

events in the region. In either case, a significant demand for the exercise of U.S. military power will exist. For the reasons discussed above, the navy is very likely to remain the primary agent to meet this demand.

IMPLICATIONS FOR THE FUTURE

The most likely forecast is that the U.S. will maintain a posture of forward defense in Europe and the Western Pacific and will actively seek to influence developments in key regions of the Third World. U.S. authorities are almost certain to employ politico-military means, along with other forms of national power, especially for the latter purpose. Two particularly influential determinants of the means selected by U.S. decisionmakers will be: (1) the unfolding nature of change in critical regions of the Third World -- it is much more likely to be disorderly and violent than peaceful, and an important portion of that violence will focus on the U.S. and U.S. interests; and (2) the policies followed by the USSR -- Soviet activism will continue and the politico-military instrument will be prominently employed. In coming years, should Soviet energy requirements cause the development of a vital Soviet interest in the

Persian Gulf, the U.S. and its allies could confront the gravest potential long-term threat to their security since the Second World War. If so, a strategic realignment of the military power of the industrial democracies may be called for.

Demand for the use of the navy as an instrument of U.S. foreign policy almost certainly will be strong, and prudent planners have sound reasons to anticipate an increase in demand, with the following important proviso: Decisionmakers should take care not to demand more of naval diplomacy than it should reasonably be expected to deliver. In the aggregate, it is ill-suited for most anti-terrorism tasks. For such purposes specialized capabilities must be carefully developed in each of the services. Further, it must be recognized that some national actors on the international scene today are -- perhaps like pre-World War II Japan -- extremely difficult to coerce. Moreover, even with the most skillful tactical employment of naval diplomacy, it should not be viewed as a substitute for other, slower acting, longer-lived policy instruments. Still less should it be regarded as capable of salvaging, on more than a temporary basis, situations that deteriorate because other instruments

have been ineffectively employed or because such situations simply lie beyond the power of the U.S. to control at political or moral costs its citizens have traditionally been willing to bear. The latter will become especially important if the target of U.S. coercive action possesses nuclear weapons. It cannot be ruled out, of course, that in some cases a narrower definition of U.S. interests may become inescapable.

Assuming national decisionmakers remain mindful of these caveats, they are likely to require a significant U.S. naval presence in vital theaters to enhance the seriousness with which U.S. interests are taken into account and the periodic introduction of naval force into other theaters of interest. They will require, in addition, the augmentation of that presence with needed capabilities to support the interests of the U.S. and its clients and to limit the effects of coercive diplomacy when employed by the Soviet Union. Especially when the Soviets are involved, significant increments of U.S. naval power will be required.

CNA Professional Papers — 1976 to Present*

- PP 141 Mizrahi, Maurice M., "Generalized Hermite Polynomials," 5 pp., Feb 1976 (Reprinted from the Journal of Computational and Applied Mathematics, Vol. 1, No. 4 (1975), 273-277).
*Research supported by the National Science Foundation
- PP 142 Horowitz, Stanley and Sherman, Allan (LCdr., USN), "Maintenance Personnel Effectiveness in the Navy," 33 pp., Jan 1976 (Presented at the RAND Conference on Defense Manpower, Feb 1976) AD A021 581
- PP 144 Durch, William J., "The Navy of the Republic of China — History, Problems, and Prospects," 66 pp., Aug 1976 (Published in "A Guide to Asiatic Fleets," ed. by Barry M. Blechman and Robert Berman, Naval Institute Press) AD A030 460
- PP 145 Kelly, Anne M., "Port Visits and the "Internationalist Mission" of the Soviet Navy," 36 pp., Apr 1976, AD A023 436
- PP 147 Kessler, J. Christian, "Legal Issues in Protecting Offshore Structures," 33 pp., Jun 1976 (Prepared under task order N00014-68-A-0091-0023 for ONR) AD A028 389
- PP 149 Squires, Michael L., "Counterforce Effectiveness: A Comparison of the Tsipis "K" Measure and a Computer Simulation," 24 pp., Mar 1976 (Presented at the International Study Association Meetings, 27 Feb 1976) AD A022 591
- PP 150 Kelly, Anne M. and Petersen, Charles, "Recent Changes in Soviet Naval Policy: Prospects for Arms Limitations in the Mediterranean and Indian Ocean," 28 pp., Apr 1976, AD A 023 723
- PP 151 Horowitz, Stanley A., "The Economic Consequences of Political Philosophy," 8 pp., Apr 1976 (Reprinted from Economic Inquiry, Vol. XIV, No. 1, Mar 1976)
- PP 152 Mizrahi, Maurice M., "On Path Integral Solutions of the Schrödinger Equation, Without Limiting Procedure," 10 pp., Apr 1976 (Reprinted from Journal of Mathematical Physics, Vol. 17, No. 4 (Apr 1976), 568-575).
*Research supported by the National Science Foundation
- PP 153 Mizrahi, Maurice M., "WKB Expansions by Path Integrals, With Applications to the Anharmonic Oscillator," 137 pp., May 1976, AD A025 440
*Research supported by the National Science Foundation
- PP 154 Mizrahi, Maurice M., "On the Semi-Classical Expansion in Quantum Mechanics for Arbitrary Hamiltonians," 19 pp., May 1976 (Published in Journal of Mathematical Physics, Vol. 18, No. 4, p. 786, Apr 1977), AD A025 441
- PP 155 Squires, Michael L., "Soviet Foreign Policy and Third World Nations," 26 pp., Jun 1976 (Prepared for presentation at the Midwest Political Science Association meetings, Apr 30, 1976) AD A028 388
- PP 156 Stollings, William, "Approaches to Chinese Character Recognition," 12 pp., Jun 1976 (Reprinted from Pattern Recognition (Pergamon Press), Vol. 8, pp. 87-98, 1976) AD A028 692
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- PP 159 McConnell, James M., "The Gorshkov Articles, The New Gorshkov Book and Their Relation to Policy," 93 pp., Jul 1976 (Published in Soviet Naval Influence: Domestic and Foreign Dimensions, ed. by M. McGwire and J. McDonnell, New York: Praeger, 1977) AD A029 227
- PP 160 Wilson, Desmond P., Jr., "The U.S. Sixth Fleet and the Conventional Defense of Europe," 50 pp., Sep 1976, AD A030 457
- PP 161 Melich, Michael E. and Peet, Vice Adm. Ray (USN, Retired), "Fleet Commanders: Afloat or Ashore?" 9 pp., Aug 1976 (Reprinted from U.S. Naval Institute Proceedings, Jun 1976) AD A030 456
- PP 162 Friedheim, Robert L., "Parliamentary Diplomacy," 106 pp. Sep 1976 AD A033 306
- PP 163 Lockman, Robert F., "A Model for Predicting Recruit Losses," 9 pp., Sep 1976 (Presented at the 84th annual convention of the American Psychological Association, Washington, D.C., 4 Sep 1976) AD A030 459
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- PP 166 — Revised Feldman, Paul, "Why It's Difficult to Change Regulation," Oct 1976, AD A037 682
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- PP 168 Lockman, Robert F., "Revalidation of CNA Support Personnel Selection Measures," 36 pp., Nov 1976
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- PP 171 Ralston, James M., "A Diffusion Model for GaP Red LED Degradation," 10 pp., Nov 1976, (Published in Journal of Applied Physics, Vol. 47, pp. 4518-4527, Oct 1976)
- PP 172 Classen, Kathleen P., "Unemployment Insurance and the Length of Unemployment," Dec 1976, (Presented at the University of Rochester Labor Workshop on 16 Nov 1976)
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- PP 174 Mahoney, Robert B., Jr., "A Comparison of the Brookings and International Incidents Projects," 12 pp. Feb 1977 AD A037 206
- PP 175 Levine, Daniel, Stolfoff, Peter and Spruill, Nancy, "Public Drug Treatment and Addict Crime," June 1976, (Published in Journal of Legal Studies, Vol. 5, No. 2)
- PP 176 Felix, Wendi, "Correlates of Retention and Promotion for USNA Graduates," 38 pp., Mar 1977, AD A039 040
- PP 177 Lockman, Robert F. and Warner, John T., "Predicting Attrition: A Test of Alternative Approaches," 33 pp. Mar 1977, (Presented at the OSD/ONR Conference on Enlisted Attrition, Xerox International Training Center, Leesburg, Virginia, 4-7 April 1977), AD A039 047
- PP 178 Kleinman, Samuel D., "An Evaluation of Navy Unrestricted Line Officer Accession Programs," 23 pp. April 1977, (Presented at the NATO Conference on Manpower Planning and Organization Design, Stresa, Italy, 20 June 1977), AD A039 048

*CNA Professional Papers with an AD number may be obtained from the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22151. Other papers are available from the Management Information Office, Center for Naval Analyses, 2000 North Beauregard Street, Alexandria, Virginia 22311. An Index of Selected Publications is also available on request. The index includes a Listing of Professional Papers, with abstracts, issued from 1969 to February 1978.

PP 179

Stoloff, Peter H. and Balut, Stephen J., "Vacate: A Model for Personnel Inventory Planning Under Changing Management Policy," 14 pp. April 1977. (Presented at the NATO Conference on Manpower Planning and Organization Design, Stress, Italy, 20 June 1977), AD A039 049

PP 180

Horowitz, Stanley A. and Sherman, Allan, "The Characteristics of Naval Personnel and Personnel Performance," 16 pp. April 1977. (Presented at the NATO Conference on Manpower Planning and Organization Design, Stress, Italy, 20 June 1977), AD A039 050

PP 181

Balut, Stephen J. and Stoloff, Peter, "An Inventory Planning Model for Navy Enlisted Personnel," 35 pp., May 1977 (Prepared for presentation at the Joint National Meeting of the Operations Research Society of America and The Institute for Management Science, 9 May 1977, San Francisco, California), AD A042 221

PP 182

Murray, Russell, 2nd, "The Quest for the Perfect Study or My First 1138 Days at CNA," 57 pp., April 1977

PP 183

Kassing, David, "Changes in Soviet Naval Forces," 33 pp., November, 1976, (Published as part of Chapter 3, "General Purpose Forces: Navy and Marine Corps," in Arms, Men, and Military Budgets, Francis P. Hoerber and William Schneider, Jr. (eds.), (Crane, Russak & Company, Inc.: New York), 1977), AD A040 106

PP 184

Lockman, Robert F., "An Overview of the OSD/ONR Conference on First Term Enlisted Attrition," 22 pp., June 1977, (Presented to the 39th MORS Working Group on Manpower and Personnel Planning, Annapolis, Md., 28-30 Jun 1977), AD A043 618

PP 185

Kassing, David, "New Technology and Naval Forces in the South Atlantic," 22 pp. (This paper was the basis for a presentation made at the Institute for Foreign Policy Analyses, Cambridge, Mass., 28 April 1977), AD A043 619

PP 186

Mizrahi, Maurice M., "Phase Space Integrals, Without Limiting Procedure," 31 pp., May 1977, (Invited paper presented at the 1977 NATO Institute on Path Integrals and Their Application in Quantum Statistical, and Solid State Physics, Antwerp, Belgium, July 17-30, 1977) (Published in Journal of Mathematical Physics 19(1), p. 298, Jan 1978), AD A040 107

PP 187

Coile, Russell C., "Nomography for Operations Research," 35 pp., April 1977 (Presented at the Joint National Meeting of the Operations Research Society of America and The Institute for Management Services, San Francisco, California, 9 May 1977), AD A043 620

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Durch, William J., "Information Processing and Outcome Forecasting for Multilateral Negotiations: Testing One Approach," 53 pp., May 1977 (Prepared for presentation to the 18th Annual Convention of the International Studies Association, Chase-Park Plaza Hotel, St. Louis, Missouri, March 16-20, 1977), AD A042 222

PP 189

Coile, Russell C., "Error Detection in Computerized Information Retrieval Data Bases," July, 1977, 13 pp. (Presented at the Sixth Cranfield International Conference on Mechanized Information Storage and Retrieval Systems, Cranfield Institute of Technology, Cranfield, Bedford, England, 26-29 July 1977), AD A043 580

PP 190

Mahoney, Robert B., Jr., "European Perceptions and East-West Competition," 96 pp., July 1977 (Prepared for presentation at the annual meeting of the International Studies Association, St. Louis, Mo., March, 1977), AD A043 661

PP 191

Sawyer, Ronald, "The Independent Field Assignment: One Man's View," August 1977, 25 pp.

PP 192

Holen, Arlene, "Effects of Unemployment Insurance Entitlement on Duration and Job Search Outcome," August 1977, 6 pp., (Reprinted from Industrial and Labor Relations Review, Vol. 30, No. 4, Jul 1977)

PP 193

Horowitz, Stanley A., "A Model of Unemployment Insurance and the Work Test," August 1977, 7 pp. (Reprinted from Industrial and Labor Relations Review, Vol. 30, No. 40, Jul 1977)

PP 194

Classen, Kathleen P., "The Effects of Unemployment Insurance on the Duration of Unemployment and Subsequent Earnings," August 1977, 7 pp. (Reprinted from Industrial and Labor Relations Review, Vol. 30, No. 40, Jul 1977)

PP 195

Brechling, Frank, "Unemployment Insurance Taxes and Labor Turnover: Summary of Theoretical Findings," 12 pp. (Reprinted from Industrial and Labor Relations Review, Vol. 30, No. 40, Jul 1977)

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Relston, J. M. and Lorimor, O. G., "Degradation of Bulk Electroluminescent Efficiency in Zn, O-Doped GaP LED's," July 1977, 3 pp. (Reprinted from IEEE Transactions on Electron Devices, Vol. ED-24, No. 7, July 1977)

PP 197

Wells, Anthony R., "The Centre for Naval Analyses," 14 pp., Dec 1977, AD A049 107

PP 198

Classen, Kathleen P., "The Distributional Effects of Unemployment Insurance," 25 pp., Sept. 1977 (Presented at a Hoover Institution Conference on Income Distribution, Oct 7-8, 1977), AD A054 423

PP 199

Durch, William J., "Revolution From A F.A.R. - The Cuban Armed Forces in Africa and the Middle East," Sep 1977, 16 pp., AD A046 268

PP 200

Powers, Bruce F., "The United States Navy," 40 pp. Dec 1977 (Published as a chapter in The U.S. War Machine by Salamander Books, England, 1978), AD A049 108

PP 201

Durch, William J., "The Cuban Military in Africa and The Middle East: From Algeria to Angola," Sep 1977, 67 pp., AD A045 675

PP 202

Feldman, Paul, "Why Regulation Doesn't Work," (Reprinted from Technological Change and Welfare in the Regulated Industries and Review of Social Economy, Vol. XXIX, March, 1971, No. 1.) Sep 1977, 8 pp.

PP 203

Feldman, Paul, "Efficiency, Distribution, and the Role of Government in a Market Economy," (Reprinted from The Journal of Political Economy, Vol. 79, No. 3, May/June 1971.) Sep 1977, 19 pp., AD A045 675

PP 204

Wells, Anthony R., "The 1967 June War: Soviet Naval Diplomacy and The Sixth Fleet - A Reappraisal," Oct 1977, 36 pp., AD A047 236

PP 205

Coile, Russell C., "A Bibliometric Examination of the Square Root Theory of Scientific Publication Productivity," (Presented at the annual meeting of the American Society for Information Science, Chicago, Illinois, 29 September 1977.) Oct 1977, 6 pp., AD A047 237

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McConnell, James M., "Strategy and Missions of the Soviet Navy in the Year 2000," 48 pp., Nov 1977 (Presented at a Conference on Problems of Sea Power as we Approach the 21st Century, sponsored by the American Enterprise Institute for Public Policy Research, 6 October 1977, and subsequently published in a collection of papers by the Institute), AD A047 244

PP 207

Goldberg, Lawrence, "Cost-Effectiveness of Potential Federal Policies Affecting Research & Development Expenditures in the Auto, Steel and Food Industries," 36 pp., Oct 1977, (Presented at Southern Economic Association Meetings beginning 2 November 1977), AD A046 269

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Roberts, Stephen S., "The Decline of the Overseas Station Fleets: The United States Asiatic Fleet and the Shanghai Crisis, 1932," 18 pp., Nov 1977 (Reprinted from The American Neptune, Vol. XXXVII, No. 3, July 1977), AD A047 245

PP 209 - Classified.

PP 210

Kassing, David, "Protecting The Fleet," 40 pp., Dec 1977 (Prepared for the American Enterprise Institute Conference on Problems of Sea Power as We Approach the 21st Century, October 6-7, 1977), AD A049 109

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Mizrahi, Maurice M., "On Approximating the Circular Coverage Function," 14 pp., Feb 1978, AD A054 429
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Mangel, Marc, "Fluctuations in Systems with Multiple Steady States. Application to Lanchester Equations," 12 pp., Feb 78, (Presented at the First Annual Workshop on the Information Linkage Between Applied Mathematics and Industry, Naval PG School, Feb 23-25, 1978), AD A071 472
- PP 214
Weinland, Robert G., "A Somewhat Different View of The Optimal Naval Posture," 37 pp., Jun 1978 (Presented at the 1976 Convention of the American Political Science Association (APSA/IUS Panel on "Changing Strategic Requirements and Military Posture"), Chicago, Ill., September 2, 1976), AD A056 228
- PP 215
Coile, Russell C., "Comments on: Principles of Information Retrieval by Manfred Kochen," 10 pp., Mar 78, (Published as a Letter to the Editor, Journal of Documentation, Vol. 31, No. 4, pages 298-301, December 1975), AD A054 426
- PP 216
Coile, Russell C., "Lotka's Frequency Distribution of Scientific Productivity," 18 pp., Feb 1978, (Published in the Journal of the American Society for Information Science, Vol. 28, No. 6, pp. 366-370, November 1977), AD A054 425
- PP 217
Coile, Russell C., "Bibliometric Studies of Scientific Productivity," 17 pp., Mar 78, (Presented at the Annual meeting of the American Society for Information Science held in San Francisco, California, October 1976), AD A054 442
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Weinland, Robert G., "Superpower Naval Diplomacy in the October 1973 Arab-Israeli War," 76 pp., Jun 1978, AD A055 584
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Mizrahi, Maurice M., "Correspondence Rules and Path Integrals," 30 pp., Jun 1978 (Invited paper presented at the CNRS meeting on "Mathematical Problems in Feynman's Path Integrals," Marseille, France, May 22-26, 1978), AD A055 536
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*Portions of this work were started at the Institute of Applied Mathematics and Statistics, University of British Columbia, Vancouver, B.C., Canada
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Mangel, Marc, "Oscillations, Fluctuations, and the Hopf Bifurcation," 43 pp., Jun 1978, AD A058 537
*Portions of this work were completed at the Institute of Applied Mathematics and Statistics, University of British Columbia, Vancouver, Canada.
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Ralston, J. M. and J. W. Mann, "Temperature and Current Dependence of Degradation in Red-Emitting GaP LEDs," 34 pp., Jun 1978, AD A058 538
*Bell Telephone Laboratories, Inc.
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Mangel, Marc, "Diffusion Theory of Reaction Rates. II Ornstein-Uhlenbeck Approximation," 34 pp., Feb 1978, AD A058 542
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Wilton, Desmond P. Jr., "Naval Projection Forces: The Case for a Responsive MAF," Aug 1978, AD A058 543
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Jacobson, Louis, "Can Policy Changes Be Made Acceptable to Labor?" Aug 1978 (Submitted for publication in Industrial and Labor Relations Review), AD A061 528
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Jacobson, Louis, "An Alternative Explanation of the Cyclical Pattern of Quittes," 23 pp., Sep 1978
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Jondrow, James and Levy, Robert A., "Does Federal Expenditure Displace State and Local Expenditure: The Case of Construction Grants," 25 pp., Oct 1979 PP 235
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Mizrahi, Maurice M., "The Semiclassical Expansion of the Anharmonic-Oscillator Propagator," 41 pp., Oct 1978 (To appear in the Journal of Mathematical Physics), AD A061 538
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Simpson, William R., "The Analysis of Dynamically Interactive Systems (Air Combat by the Numbers)," 60 pp., Dec 1978, AD A063 760
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Simpson, William R., "A Probabilistic Formulation of Murphy Dynamics as Applied to the Analysis of Operational Research Problems," 18 pp., Dec 1978, AD A063 761
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Sherman, Allan and Horowitz, Stanley A., "Maintenance Costs of Complex Equipment," 20 pp., Dec 1978, AD A071 473
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Simpson, William R., "The Accelerometer Methods of Obtaining Aircraft Performance from Flight Test Data (Dynamic Performance Testing)," 403 pp., Jun 1979, AD A075 226
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Petersen, Charles C., "Third World Military Elites in Soviet Perspective," 50 pp., Nov 1979, AD A077 836
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Weinland, Robert G., "The U.S. Navy in the Pacific: Past, Present, and Glimpses of the Future," 31 pp., Nov 1979 (Delivered at the International Symposium on the Sea, sponsored by the International Institute for Strategic Studies, The Brookings Institution and the Yomiuri Shimbun, Tokyo, 16-20 Oct 1978) AD A086 837
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Weinland, Robert G., "War and Peace in the North: Some Political Implications of the Changing Military Situation in Northern Europe," 18 pp., Nov 1979 (Prepared for presentation to the "Conference of the Nordic Balance in Perspective: The Changing Military and Political Situation," Center for Strategic and International Studies, Georgetown University, Jun 15-16, 1978) AD A077 838
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Utgoff, Kathy Glessen, and Brechling, Frank, "Taxes and Inflation," 25 pp., Nov 1979
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